**Amendments to the Claims**

Please amend the claims as follows:

1. (Currently amended) An immunogenic composition comprising a polypeptide comprising an amino acid sequence which has at least 85% identity ~~to an amino acid sequence selected from the group consisting of SEQ Group 2~~ to SEQ ID NO: 34, over the entire length of ~~said sequence from SEQ Group 2~~ SEQ ID NO: 34, or an immunogenic fragment thereof, and a pharmaceutically acceptable excipient[[ ]].

2. (Currently amended) The immunogenic composition as claimed in claim 1 in which the polypeptide comprises an amino acid sequence which has at least 95% identity to ~~an amino acid sequence selected from the group consisting of SEQ Group 2~~ to SEQ ID NO: 34, over the entire length of ~~said sequence from SEQ Group 2~~ SEQ ID NO: 34, or an immunogenic fragment thereof.

3. (Currently amended) The immunogenic composition as claimed in claim 1 in which the polypeptide comprises ~~an amino acid sequence selected from the group consisting of SEQ Group 2~~ SEQ ID NO: 34, or an immunogenic fragment thereof.

4. (Currently amended) The immunogenic composition of claim 1 in which the polypeptide comprises an amino acid sequence which is an immunogenic fragment of ~~the polypeptide of SEQ Group 2~~ SEQ ID NO: 34 in which said immunogenic fragment ~~is capable of raising~~ raises an immune response which recognises ~~the corresponding polypeptide of SEQ Group 2~~ SEQ ID NO: 34.

5. (Previously presented) The immunogenic composition as claimed in claim 1 wherein said polypeptide is part of a larger fusion protein.

6. (Currently amended) An immunogenic composition comprising a polynucleotide comprising a nucleotide sequence having at least 85% identity to ~~the nucleotide sequence of SEQ Group 1~~ SEQ ID NO: 33, over the entire length of ~~said sequence from SEQ Group 1~~ SEQ ID NO: 33 and a pharmaceutically acceptable excipient.

7. (Currently amended) The immunogenic composition of claim 6 wherein the polynucleotide comprises a nucleotide sequence having at least 95% identity to ~~the nucleotide~~

~~sequence of SEQ Group 1~~ SEQ ID NO: 33, over the entire length of ~~said sequence from SEQ Group 1~~ SEQ ID NO: 33.

8. (Currently amended) The immunogenic composition of claim 6 wherein the polynucleotide comprises a nucleotide sequence having the sequence of ~~any polynucleotide selected from the group consisting of SEQ Group 1~~ SEQ ID NO: 33.

9. (Currently amended) An immunogenic composition comprising a polynucleotide encoding a polypeptide comprising an amino acid sequence which has at least 85% identity to ~~an amino acid sequence selected from the group consisting of SEQ Group 2~~ SEQ ID NO: 34, over the entire length of ~~said sequence from SEQ Group 2~~ SEQ ID NO: 34, or an immunogenic fragment thereof, and a pharmaceutically acceptable excipient.

10. (Currently amended) The immunogenic composition of claim 9 wherein the polynucleotide encodes a polypeptide ~~comprising an amino acid sequence selected from the group consisting of SEQ Group 2~~ of SEQ ID NO: 34, or an immunogenic fragment thereof.

11. (Currently amended) An immunogenic composition comprising at least or exactly two, three, four, five, six, seven, eight, nine or ten different Bordetella~~, preferably *B. pertussis*,~~ antigens wherein the antigens are selected from at least two, three, four or five groups of proteins selected from the following:

a) at least one Bordetella autotransporter protein selected from the group consisting of a polypeptide sharing at least 70% identity with SEQ ID 34~~, 30, 32, 36, 38, 40, 42, 44, 46, 48, 50, 52, or 54 and BipA and pertactin~~ or an antigenic fragment thereof~~, preferably the passenger domain thereof~~;
b) at least one Bordetella iron acquisition protein selected from the group consisting of a polypeptide sharing at least 70% identity with SEQ ID 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, or 28, or an antigenic fragment thereof;
c) at least one Bordetella lipoprotein selected from the group consisting of a polypeptide sharing at least 70% identity with SEQ ID 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, or 98 or an antigenic fragment thereof;
d) at least one Bordetella adhesin selected from the group consisting of FHA, fimbriæ 2 and/or 3, pertactin and BrkA or an antigenic fragment thereof; and

e) at least one Bordetella toxin/invasin or antigens involved in toxin/invasin secretion selected from the group consisting of pertussis toxin, adenylate cyclase, dermonecrotic toxin (Dnt), Type III ss or lipopolysaccharide or an antigenic fragment thereof,

wherein the Bordetella antigens in the immunogenic composition do not consist of any combination of 2, 3, 4 or all 5 of pertactin, fibriae 2, fimbrae 3, FHA and pertussis toxin.

12. (Original) The immunogenic composition of claim 11 comprising one or more Bordetella iron acquisition protein selected from the group consisting of the polypeptides sharing at least 70% identity with SEQ ID 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 or 28, or an antigenic fragment thereof.

13. (Original) The immunogenic composition of claim 12 wherein the Bordetella iron acquisition protein is BhuR or an antigenic fragment thereof.

14. – 22. (Cancelled)

23. (Previously presented) The immunogenic composition of claim 11 comprising a Bordetella lipoprotein selected from the group consisting of BipA, the polypeptide sharing at least 70% identity with SEQ ID 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96 or 98 or an antigenic fragment thereof.

24. (Original) The immunogenic composition of claim 23 wherein the Bordetella lipoprotein is MltA or an antigenic fragment thereof.

25. (Previously presented) The immunogenic composition of claim 23 wherein the Bordetella lipoprotein is MltB or an antigenic fragment thereof.

26. (Previously presented) The immunogenic composition of claim 23 wherein the Bordetella lipoprotein is VacJ or an antigenic fragment thereof.

27. (Previously presented) The immunogenic composition of claim 23 wherein the Bordetella lipoprotein is OmlA or an antigenic fragment thereof.

28. (Previously presented) The immunogenic composition of claim 23 wherein the Bordetella lipoprotein is Pcp or an antigenic fragment thereof.

29. (Previously presented) The immunogenic composition of claim 11 comprising a Bordetella adhesin selected from the group consisting of BrkA, FHA, fimbriae and pertactin or an antigenic fragment thereof.

30. (Original) The immunogenic composition of claim 29 wherein the Bordetella adhesin is FHA or an antigenic fragment thereof.

31. (Previously presented) The immunogenic composition of claim 29 wherein the Bordetella adhesin is Fimbriae 2 and/or 3 or an antigenic fragment thereof.

32. (Previously presented) The immunogenic composition of claim 11 comprising a Bordetella toxin/invasin or antigens involved in toxin/invasin secretion selected from the group consisting of pertussis toxin, adenylate cyclase, dermonecrotic toxin (Dnt), Type III ss or lipopolysaccharide (LPS) or an antigenic fragment thereof.

33. (Original) The immunogenic composition of claim 32 wherein the Bordetella toxin/invasin or antigen involved in toxin/invasin secretion is pertussis toxin or an antigenic fragment thereof.

34. (Previously presented) The immunogenic composition of claim 32 wherein the Bordetella toxin/invasin or antigen involved in toxin/invasin secretion is Type III ss or an antigenic fragment thereof.

35. (Previously presented) The immunogenic composition of claim 32 wherein the Bordetella toxin/invasin or antigen involved in toxin/invasin secretion is LPS or an antigenic fragment thereof.

36. (Currently amended) The immunogenic composition of claim 11 comprising a) FHA, b) pertussis toxin and c) BrkA or a protein sharing at least 70% identity with SEQ ID 34, or an antigenic fragment thereof~~, preferably further comprising d) pertactin~~.

37. – 52. (Cancelled)

53. (Previously presented) The immunogenic composition of claim 11 comprising a polypeptide that is expressed during the Bvg+ early phase of Bordetella infection.

54. (Previously presented) The immunogenic composition of claim 11 comprising a polypeptide that is expressed during the Bvg+ late phase of Bordetella infection.

55. (Previously presented) The immunogenic composition of claim 11 comprising a polypeptide that is expressed during the Bvgi phase of Bordetella infection.

56. (Previously presented) The immunogenic composition of claim 11 comprising an antigen that is expressed during the Bvg- phase of Bordetella infection.

57. (Previously presented) The immunogenic composition of claim 11, further comprising diphtheria toxoid and tetanus toxoid.

58. (Previously presented) The immunogenic composition of claim 11 further comprising PRP capsular oligosaccharide or polysaccharide from Haemophilus influenzae b, preferably conjugated to a source of T-cell epitopes.

59. (Previously presented) The immunogenic composition of claim 11 further comprising hepatitis B surface antigen (HbsAg).

60. (Previously presented) The immunogenic composition of claim 11 further comprising inactivated polio vaccine (IPV).

61. (Previously presented) The immunogenic composition of claim 11 further comprising one or more of Men A, C, W or Y capsular polysaccharides or oligosaccharides, preferably conjugated to a source of T-cell epitopes.

62. (Previously presented) The immunogenic composition of claim 11 further comprising a protein from *N. meningitidis* serogroup B.

63. (Previously presented) The immunogenic composition of claim 11 further comprising one or more capsular polysaccharides or oligosaccharides from *S. pneumoniae*, preferably conjugated to a source of T-cell epitopes.

64. (Previously presented) The immunogenic composition of claim 11 further comprising killed attenuated Hepatitis A virus.

65. (Previously presented) A vaccine comprising the immunogenic composition of claim 11.

66. (Original) The vaccine of claim 65 comprising an adjuvant.

67. (Cancelled)

68. (Cancelled)

69. (Previously presented) A method for treating or preventing Bordetella infection comprising administering the vaccine of claim 66 to a host.

70. (Original) The method of claim 69 in which both *B. pertussis* and *B. parapertussis* infection is treated or prevented.

71. (Cancelled)

72. (New) The immunogenic composition of claim 11 comprising a) FHA, b) pertussis toxin and c) BrkA or a protein sharing at least 70% identity with SEQ ID 34, or an antigenic fragment thereof, and d) pertactin.